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## ABSTRACT OF THE DISCLOSURE

A method for manufacturing a semiconductor optical waveguide comprises the steps of forming a core layer having an Al content which monotonically increases from the central part thereof to the film surface, and selectively oxidizing the core layer to obtain a peripheral, oxidized region and a central, non-oxidized region acting as a waveguide. The waveguide is tapered to have a circular mode field at the distal end thereof for efficiently coupling with an optical fiber.